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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/493,984	01/28/2000	Robert S. Eisenbart	18926-003220US	2907

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EXAMINER

SIMITOSKI, MICHAEL J

ART UNIT	PAPER NUMBER
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2134

DATE MAILED: 10/28/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

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Office Action Summary

Application No.

09/493,984

Applicant(s)

EISENBART ET AL.

Examiner

Michael J Simitoski

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 January 2000.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-23 is/are rejected.
- 7) ☒ Claim(s) 4 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 28 January 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 3,6,8-10.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

1. The IDS papers of 10/23/00 (#3), 11/20/00 (#5), 3/1/01 (#6), 7/16/01 (#8), 1/31/02 (#9) and 9/6/02 (#10) have been received and considered.
2. Claims 1-23 are pending.
3. Applicant has canceled claim 20.

Specification

4. The disclosure is objected to because of the following informalities: On page 9, line 30, "send" should be replaced with "sent".

Appropriate correction is required.

Claim Rejections - 35 USC § 112

5. Claim 4 is objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form.

For examination, in view of similar claims, claim 4 was understood to be equivalent to "The method for distributing information of claim 1, further comprising a step of determining which resources a software object in the second information is entitled to interact with."

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 1, 3, 6, 8, 11, 12 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 6,005,938 to Banker et al. (Banker) in view of U.S. Patent 5,005,200 to Fischer.

Regarding claims 1, 3, 6, 8, 11 and 13 Banker discloses sending a service instance and an entitlement control message (ECM) to a customer in a distributed network (see col. 1, lines 64-67 and col. 2, lines 1-32). The ECM contains a MAC (signature) of the contents of the ECM (see Fig. 5) and the service instances and ECMs are sent separately over the network to the subscribers (see col. 6, lines 36-44). Banker's system lacks generation of a digital signature over both the ECM and service instance. Fischer teaches that by digitally signing multiple objects together, the objects are verifiable and there is an indication of the relationship between each object and the group (see col. 7, lines 63-67). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to digitally sign both the software object and the rules file in the Schneck reference, to maintain verifiability while creating an association between the two, as taught by Fischer.

Regarding claim 12, Banker discloses including dates of validity in the authorization data (see Fig. 2).

8. Claims 2, 4, 9 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Banker in view of Fischer as applied to claim 1 above, and in further view of U.S. Patent 6,256,393 to Safadi et al. (Safadi). Banker discloses a system, as modified above, that verifies broadcasted information, but lacks specifically receiving software objects. Safadi teaches a

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system wherein software objects are verified, then downloaded in response to a need for system cable operators to maintain control of the features and applications that run on set-top terminals (see col. 1, lines 19-27 and col. 2, lines 13-39). Safadi's invention determines if the software object is authorized to use the set-top terminal resources (see col. 2, lines 43-60) and if the object is not authorized, the object is not executed (see col. 2, lines 61-63). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to expand Banker's system to transmit software objects as well as broadcast information, to satisfy a need for cable operators to maintain set-top terminals, as taught by Safadi.

9. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Banker in view of Fischer as applied to claim 1 above, and in further view of U.S. Patent 6,012,144 to Pickett.

Banker discloses a system, as modified above, but lacks delaying part of the transmission by a predetermined amount of time. Pickett teaches that by breaking messages into pieces and sending them at different times, intercepting all of the pieces of the message is virtually impossible (see col. 3, lines 1-18). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the Banker system to delay transmission of one of the pieces of information to render interception of both pieces of information virtually impossible, as taught by Pickett.

10. Claims 7 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Banker ('938) in view of Fischer as applied to claims 1 and 8 above, and further in view of U.S. Patent 5,247,364 to Banker et al. (Banker ('364)). Banker ('938) discloses a system, as modified above,

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but lacks sending information over different transmission pathways. Banker ('364) teaches that unlike in-band transactions, out-of-band subscriber terminals receive data over this channel no matter what the channel the subscriber is tuned to (see col. 1, lines 28-44 and col. 2, lines 55-68). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to include authorization information on a different transmission pathway, gaining the benefit of delivery regardless of which channel a subscriber was tuned to, as taught Banker ('364).

11. Claims 14, 15 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Banker ('938) in view of U.S. Patent 5,247,364 to Banker et al. (Banker ('364)). Banker ('938) discloses a system as modified above, but lacks sending information over different transmission pathways. Banker ('364) teaches that unlike in-band transactions, out-of-band subscriber terminals receive data over this channel no matter what the channel the subscriber is tuned to (see col. 1, lines 28-44 and col. 2, lines 55-68). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to include authorization information on a different transmission pathway, gaining the benefit of delivery regardless of which channel a subscriber was tuned to, as taught Banker ('364).

12. Claims 16 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Banker ('938) in view of Banker ('364) as applied to claim 15 above, and further in view of U.S. Patent 6,157,721 to Shear et al. (Shear). Banker discloses a system, as modified above, but lacks using multiple signatures, with multiple signing algorithms, to sign and verify the data. Shear teaches

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that using several dissimilar digital signature algorithms can reduce vulnerability from algorithm compromise (see ABSTRACT). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to include a plurality of signatures with different signing algorithms in the authorization message and to use one or more of the signatures to validate the message, to reduce vulnerability from algorithm compromise, as taught by Shear.

13. Claim 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over Banker ('938) in view of Banker ('364) as applied to claim 14 above, and further in view of U.S. Patent 6,256,393 to Safadi et al. (Safadi). Safadi teaches that using a tiered structure (grouping of programs or services) for access control in a broadcast distribution system reduces bandwidth requirements (col. 4, lines 35-65). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Banker's ('364) design to use tiering, gaining the benefit of reduced bandwidth requirements, as taught by Safadi.

14. Claims 22 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Banker in view of Fischer as applied to claims 1 and 8 above, and further in view of U.S. Patent 6,157,721 to Shear et al. (Shear). Banker discloses a system, as modified above, that uses digital signatures for verification, but uses only one per data. Shear teaches that using several dissimilar digital signature algorithms can reduce vulnerability from algorithm compromise (see ABSTRACT). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to include a plurality of signatures with different signing

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algorithms in Banker's data and to use one or more of the signatures to validate the data, to reduce vulnerability from algorithm compromise, as taught by Shear.

Conclusion

15. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael J. Simitoski whose telephone number is (703)305-8191.

The examiner can normally be reached on Monday - Thursday, 8:00 a.m. - 5:30 p.m.. The examiner can also be reached on alternate Fridays from 8:00 a.m. - 4:30 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gregory Morse can be reached on (703)308-4789.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks
Washington, DC 20231

Or faxed to:

(703)746-7239 (for formal communications intended for entry)


Or:

(703)746-7240 (for informal or draft communications, please label "PROPOSED" or "DRAFT")

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA 22202, Fourth Floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-9000.

MJS
14 October 2003


GREGORY MORSE
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100